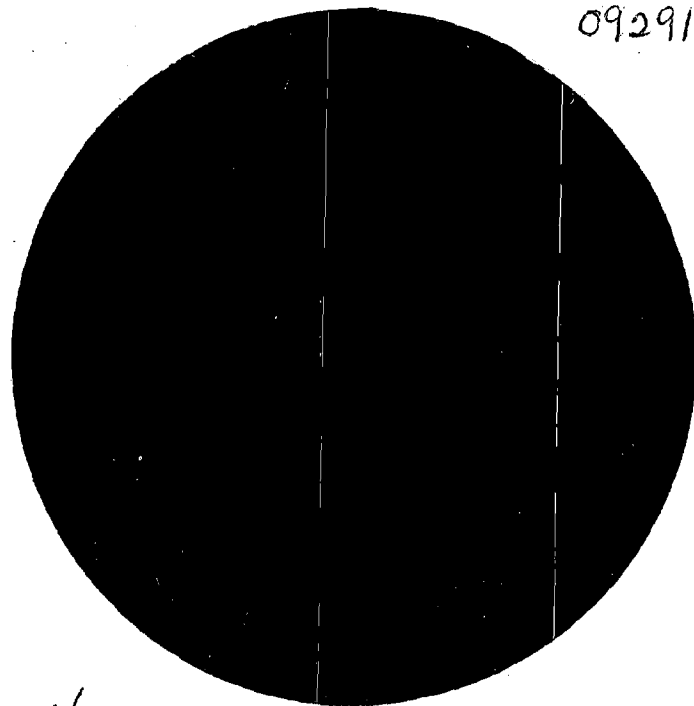


W.P.

Coastal Zone  
Information  
Center

09291



<sup>2/a</sup>  
**COASTAL ZONE  
MANAGEMENT  
PROGRAM**

**COASTAL ZONE  
INFORMATION CENTER**

FEB 03 1977

Indiana State Planning Services Agency

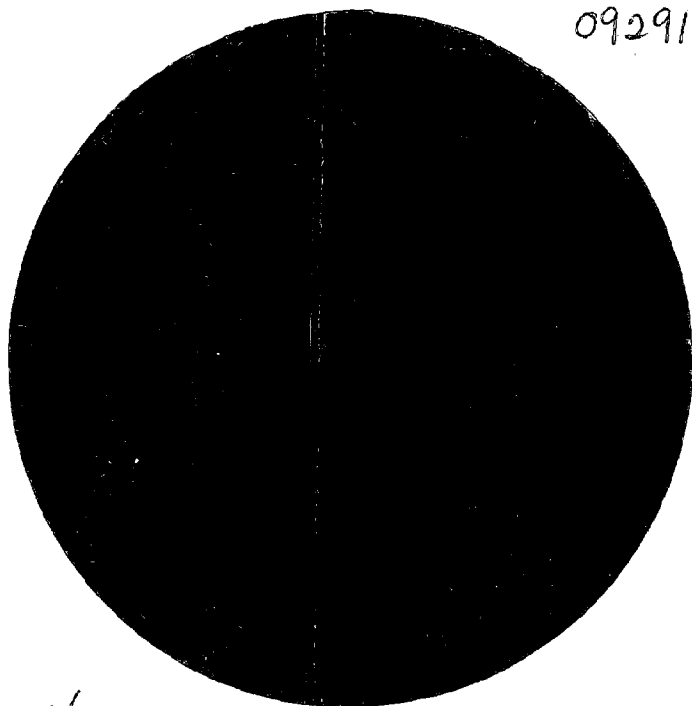
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**COASTAL ZONE  
MANAGEMENT  
PROGRAM**

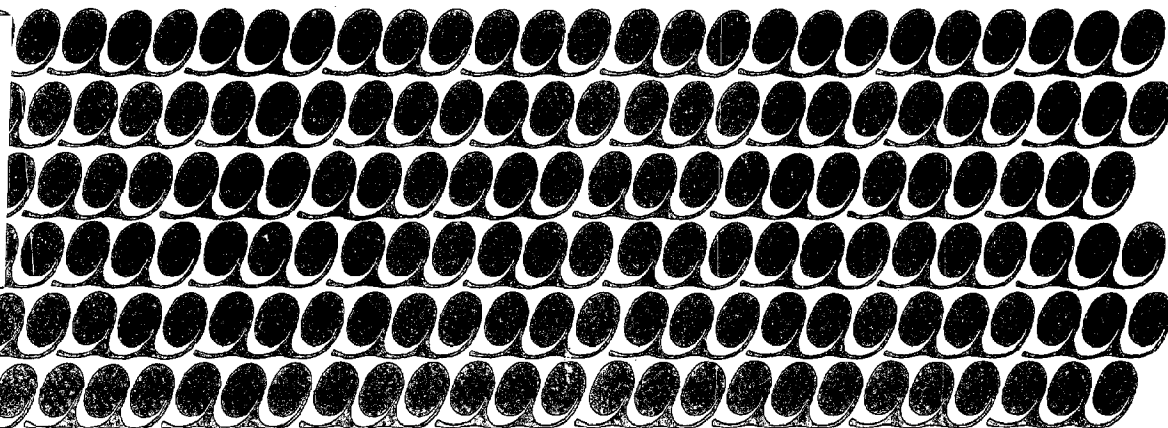
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*2/b*  
**INVENTORY OF PLANS,  
PROJECTS AND PROGRAMS**

**Technical Report No. 103**

**PART I**

HC107.I6I48 1976 no. 103 pt. 1

INVENTORY OF PLANS, PROGRAMS AND PROJECTS

Technical Report No. 103

Part I

September 1976

Prepared By:

INDIANA DEPARTMENT OF NATURAL RESOURCES

For:

Lieutenant Governor Robert D. Orr, Director  
T. "Ted" Pantazis, Executive Director  
Indiana State Planning Services Agency  
Third Floor Harrison Building  
143 West Market Street  
Indianapolis, Indiana 46204

The preparation of this report was financed in part through a comprehensive planning grant from the National Oceanic and Atmospheric Administration of the United States Department of Commerce.

# INTRODUCTION

## INTRODUCTION

The following Inventory of Plans, Projects and Programs is an effort to catalog and abstract the various Federal, State, Inter-State, and Regional governmental activities involving the natural resources and natural processes within the Indiana Coastal Zone Management study area.

This inventory was conducted under contract by the Indiana Department of Natural Resources for the State Planning and Services Agency as an element in the first year of the Coastal Zone Management Program.



# CONTENTS

## TABLE OF CONTENTS

### INVENTORY OF PLANS, PROJECTS AND PROGRAMS

#### Federal

U.S. Department of the Army Corps of Engineers	1
U.S. Department of Agriculture Soil Conservation Service	10
U.S. Department of Housing and Urban Development Federal Insurance Administration	11
National Flood Insurance Program	14
U.S. Department of Interior Geological Survey	15
Bureau of Outdoor Recreation	17
National Park Service	18

#### State

Indiana Board of Health	22
Indiana Department of Natural Resources	24

#### Inter-State

Great Lakes Basin Commission	53
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#### Regional

Lake-Porter County Regional Transportation and Planning Commission	54
Lake County Park and Recreation Board	55



FEDERAL PLANS,  
PROJECTS & PROGRAMS

# Catalog Data Sheet

## a. Supporting Agency and Program

U.S. Department of Army, Corps of Engineers

## b. Title of Project

Shore Processes Study

## c. Performing Organization

Corps of Engineers  
Coastal Engineering Research Center

## d. Completion Date

Field work completed 1973

## e. Abstract of Project

The U.S. Army Corps of Engineers Coastal Engineering Research Center (CERC) is studying shore processes along the Lake Michigan shoreline between Gary, Indiana, and Lakeside, Michigan. Annual hydrographic profiles, sand samples and aerial photographs were taken for this study between 1966 and 1973. CERC terminated field data collection for this study with its 1973 work. A total of 47 profile ranges were originally established. Ten additional profile ranges were established in September 1971 in the area just west of Michigan City Harbor. In addition, a wave gage was installed near Burns Waterway Harbor, Indiana, in the spring of 1969. Because of possible damage or destruction during the winter seasons, this gage was in place only during the navigation season. Use of the gage was discontinued in November 1972. The wave records are retained at CERC. Two new wave gages were installed in October 1974 offshore of the Red Lantern Inn, located at mile 528.3. One wave gage, a Waverider Accelerometer buoy, is located 7 miles offshore and the other, a bottom-mounted pressure gage, is located 1,700 feet offshore at an initial lake depth of 20 feet. Wave measurements are telemetered directly to CERC for analysis.

Analysis is being made by CERC of observable shoreline and bathymetric changes recorded in the photographs. All survey data have been converted to computer language developing profile plots, changes in profile areas and volumetric differences. Sand samples for the years 1966 through 1969 have been analyzed for size distributions and resulting statistical parameters. The data has been utilized in formulating the alternatives for this interim study.

A report on the data collected during 1966, 1967 and 1968 was published in the proceedings of the Twelfth Conference on Great Lakes Research in 1969. The paper is entitled "Characteristics of Lake Michigan Bottom Profiles and Sediments from Lakeside, Michigan to Gary, Indiana". The authors are E. F. Hawley and C. W. Judge of CERC.

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Army, Corps of Engineers		
b. Title of Project		
National Shoreline Study		
c. Performing Organization	d. Completion Date	
	1973	
e. Abstract of Project		
<p>Under Section 106 of the River and Harbor Act, August, 1968, the Corps was authorized to make an appraisal of shore erosion and shore protection needs. Twelve related reports have been published as a result. The Regional Inventory Reports (one for each of the nine major drainage areas) assess the nature and extent of erosion; develop conceptual plans for needed shore protection; develop general order-of-magnitude estimates of cost for selected shore protection; and identify shore owners. The Shore Protection Guidelines describe typical erosion control measures and present examples of shore protection facilities, and present criteria for planning shore protection programs. Shore Management Guidelines provide information to assist decision makers to develop and implement shore management programs. The Report on the National Shoreline Study summarizes the findings of the study and recommends priorities among serious problem areas for action to stop erosion.</p>		

Catalog Data Sheet

a. Supporting Agency and Program

U.S. Department of Army, Corps of Engineers, North Central Division

b. Title of Project

Great Lakes Shoreline Damages Study

c. Performing Organization

Individual Great Lakes State

d. Completion Date

1980

e. Abstract of Project

The purpose of the project is to estimate damages caused by high lake levels. The scope of work of the study includes:

- . preparation of maps of riparian shoreline ownership and land uses;
- . collection of residential damage data through use of self-administered questionnaires and personal interviews;
- . collection of non-residential data through use of personal interviews;
- . compiling of historical records of shoreline damage from newspaper files.

Indiana is scheduled for funding in Fiscal Year 1978 and Fiscal Year 1979. The surveys are conducted on a county by county basis.

Catalog Data Sheet

a. Supporting Agency and Program

U.S. Department of Army, Corps of Engineers

b. Title of Project

Littoral Environment Observation (LEO) Program

c. Performing Organization

d. Completion Date

Ongoing

e. Abstract of Project

The objective of the LEO Program is to establish a reservoir of repetitive and systematic measurements, by qualified observers, of the meteorological and wave parameters which affect the littoral drift movements and the shorelines. The data collected and the analyses of the data bank for all the sites will be furnished to the cooperating agencies on a 6-month basis. The Corps of Engineers will use the information for its erosion control studies, design of shore protection projects, and technical assistance program. This information will also aid the state, regional, and local agencies in their shoreland management programs for Lake Michigan.

The LEO Program has been expanded to include the western and southern shorelines of Lake Michigan in cooperation with the National Park Service, Department of Interior, the Wisconsin Department of Natural Resources, Indiana Department of Natural Resources, the Illinois Department of Conservation, and other local public agencies. A total of 12 sites have been established along the shoreline in the three states of Illinois, Indiana, and Wisconsin. Two of the sites are located within the Indiana Dunes National Lakeshore and are being staffed by the National Park Service. They are located at Central Avenue and at East Park Road.

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Army, Corps of Engineers		
b. Title of Project		
Flood Plain Information		
c. Performing Organization	d. Completion Date	
Corps of Engineers	Ongoing	
e. Abstract of Project		
<p>The U.S. Army Corps of Engineers under the continuing authority provided in Section 206 of the 1960 Flood Control Act has prepared several Flood Plain Information (FPI's) reports on basins within the study area. The FPI's include the history of flooding in the basin and identifies those areas that are subject to possible future floods. Special emphasis is given to these floods through maps, photographs, profiles, and cross sections.</p> <p>Reports:</p> <p>Flood Plain Information, Little Calumet River and Tributaries, Illinois, and Indiana. June, 1965.</p> <p>Flood Plain Information, Deep River, Turkey Creek, Duck Creek, Lake County, Indiana. March, 1973.</p> <p>Flood Plain Information, Hart Ditch, Cady Marsh Ditch, Spring Street Ditch, Lake County, Indiana. March, 1974.</p> <p>Flood Plain Information, East Arm Little Calumet River, Salt Creek, Coffee Creek, Porter County, Indiana. March, 1975.</p>		

Catalog Data Sheet			
a. Supporting Agency and Program			
U.S. Department of Army, Corps of Engineers, Chicago District			
b. Title of Project			
Indiana Shoreline Erosion Study			
c. Performing Organization		d. Completion Date	
Corps of Engineers, Chicago District		Ongoing	
e. Abstract of Project			
<p>A study of the shoreline erosion problem west of Michigan City to the Indiana-Illinois border is presently being made. An interim recommendation for the mitigation of the erosion problem rebuilding the beach west of Michigan City Harbor and a periodical replenishing of sand thereafter throughout the life of the project. The potential borrow area is from the bed of Lake Michigan updrift of Michigan City Harbor. A Shoreline Structure Inventory was conducted from the Indiana-Illinois state line to Beverly Shores.</p> <p>Related Reports:</p> <p>Moffatt and Nichol, Engineers. 1975. Indiana Shoreline Erosion Study. Prepared for the U.S. Department of Army, Corps of Engineers.</p> <p>Moffatt and Nichol, Engineers. 1976. Draft Report: Extension of Indiana Shoreline Erosion Study. Prepared for the U.S. Department of Army, Corps of Engineers.</p> <p>U.S. Department of Army, Corps of Engineers. 1975. Draft Environmental Statement: Interim Report on Indiana Shoreline Erosion.</p> <p>_____, _____. 1975. Detailed Feasibility Report: Interim Report on Indiana Shoreline Erosion.</p>			

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Army, Corps of Engineers		
b. Title of Project		
An Evaluation of the Effectiveness of Beach Nourishment and Revetment Structures at the Indiana Dunes National Lakeshore.		
c. Performing Organization	d. Completion Date	
Great Lakes Research Laboratory, Purdue University	Ongoing	
e. Abstract of Project		
As the title indicates, the purpose of this project is to evaluate the effectiveness of the beach nourishment and revetment structures placed at the Indiana Dunes National Lakeshore in 1973.		
This project basically includes:		
1) measurement of eight profile ranges from the dunes to wading depth;		
2) measurement of twelve profile ranges from basemark to -30 feet Low Water Datum;		
3) collection of sediment samples along six ranges; and		
4) data reduction and evaluation of the sand nourishment section.		

- 1) measurement of eight profile ranges from the dunes to wading depth;
- 2) measurement of twelve profile ranges from basemark to -30 feet Low Water Datum;
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Catalog Data Sheet			
a. Supporting Agency and Program			
U.S. Department of Army, Corps of Engineers, Chicago District			
b. Title of Project			
Navigation Projects			
c. Performing Organization		d. Completion Date	
Corps of Engineers, Chicago District		Ongoing	
e. Abstract of Project			
<p>The Corps of Engineers has developed and maintained three commercial-recreational harbors along the Indiana Shoreline of Lake Michigan: Indiana Harbor, Burns Waterway Harbor, and Michigan City Harbor. Michigan City Harbor and Indiana Harbor have been periodically dredged to maintain sufficient channel depth.</p> <p>Related Reports:</p> <p>U.S. Department of Army, Corps of Engineers. 1973. Draft Environmental Statement: Indiana Harbor, Indiana-Maintenance Dredging and Disposal.</p> <p>_____, _____. 1976. Michigan City Harbor, Indiana-Confined Dredge Disposal Area Site Selection Study.</p>			

Catalog Data Sheet		
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a. Supporting Agency and Program		
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U.S. Department of Army, Corps of Engineers, Chicago District

b. Title of Project		
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The Little Calumet River Study

c. Performing Organization	d. Completion Date
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e. Abstract of Project		
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The recommended plan will provide protection from flooding along the Little Calumet River, Indiana and provide part of the needed recreation opportunity in this region. The flood protection will be provided through main stem channel alterations (widening and deepening) and levees. A feature of the flood control plan is the construction of a control structure to divert flood flows from Hart Ditch eastward to Lake Michigan. These flows presently flow mostly westward into Illinois. The control structure will be designed to pass low flow westward in the Little Calumet River, as presently occurs. Alteration of bridges will be required to permit unobstructed passage of flood flows and adequate clearance for boats up to mile 8.

A navigation channel will permit power boating from Lake Michigan to Deep River, a reach of approximately 8 miles. A breakwater on the west bank of the mouth of Burns Waterway at Lake Michigan will be necessary to provide a protected entrance into the waterway. Two marinas located along the navigable portion of the river will provide off-channel berthing and launching facilities.

Areas for general recreation and open space will be provided by a greenbelt corridor encompassing the river and 9 recreation "nodes" located along the river. A total of 2,500 acres of recreational space will be provided by the proposed project. Three low dams will be constructed in the channel to impound water to maintain a higher water table and provide habitat for fish and other aquatic wildlife.

Related Reports:

Horner and Shifron, Inc. 1968. Hydrologic Report, Little Calumet River and Tributaries St. Louis, Missouri. Prepared for Indiana Department of Natural Resources.

U.S. Department of Army, Corps of Engineers. 1973. Interim Review Report - Little Calumet River, Indiana.

Environmental Planning and Engineers, Inc. 1976. A Regional Park Conceptual Development Plan for the Little Calumet River in Northwestern Indiana. Prepared for the Indiana Department of Natural Resources.

Indiana Department of Natural Resources, Division of Outdoor Recreation. 1975. An Analysis of the Recreation Potential of the Little Calumet River.

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Agriculture, Soil Conservation Service, Purdue University Agricultural Experiment Station		
b. Title of Project		
Modern Soil Surveys		
c. Performing Organization	d. Completion Date	
e. Abstract of Project		
Detailed soils mapping (scale of 1:15840) is conducted. A description of each soil series is given. The engineering test data and the interpretations of engineering properties of soils are given.		
The soil survey of Lake County was printed in 1972. Soil surveys of Porter and LaPorte Counties are currently being conducted and scheduled to be published in 1978.		

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Housing and Urban Development Federal Insurance Administration		
b. Title of Project		
Flood Insurance Study		
c. Performing Organization	d. Completion Date	
	Ongoing	
e. Abstract of Project		
The purpose of a Flood Insurance Study is to investigate the existence and severity of flood hazards in certain municipalities and to aid in the administration of the Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. Initial use of such information will be to convert communities to the regular program of flood insurance by the Federal Insurance Administration. The status of and priority for Flood Insurance Studies follows.		

TABLE Q-1. Status of the Flood Plain Information (FPI)  
and Flood Insurance (FI) Studies in the Coastal Zone Study Area.

Town	Type	Agency	Date Study Begins	Date Completed	Scale
Little Calumet	FPI	C of E	complete	1965	1:2000
Highland	FI	HUD SCS	complete	1971	1:1350
Griffith	FI	HUD SCS	complete	1971	1:1000
Hart Ditch	FPI	C of E	complete	1974	1:800
Deep R. Turkey Cr.	FPI	C of E	complete	1973	1:800
E. Arm Little Calumet R.	FPI	C of E	complete	1975	1:800
Beverly Shores	FI	HUD SCS	complete	1972	1:1000
Long Beach	FI	HUD SCS	complete	1972	1:500
Porter	FI	HUD USGS	near complete		
Hammond	FI	HUD C of E	FY 1976		
Munster	FI	HUD C of E	FY 1976		
Gary	FI	HUD C of E	FY 1976		
Chesterton	FI	HUD C of E	FY 1976		
Portage	FI	HUD C of E	FY 1976		
Schererville	FI	HUD SCS	FY 1976		
Dyer	FI	C of E	FY 1976		
E. Gary	FI	Clyde E. Williams	FY 1976		
Crown Point	FI	Clyde E. Williams	FY 1976		
Hobart	FI	Clyde E. Williams	FY 1976		
Merriville	FI	Clyde E. Williams	FY 1976		
St. John	FI	SCS	FY 1976		
Lowell	FI	SCS	FY 1976		
Lake County	FI	SCS	in progress		
Valparaiso	FI		FY 1978		

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Housing and Urban Development Federal Insurance Administration		
b. Title of Project		
Great Lakes 100-Year Open-Coast Flood Levels		
c. Performing Organization	d. Completion Date	
U.S. Department of Army, Corps of Engineers, Detroit District	October 1975	
e. Abstract of Project		
The highest water levels along the open coast that on the average will have a one percent chance of being equalled or exceeded in any given year have been determined for reaches of shoreline along the Great Lakes. These levels are based on frequency curves derived from the maximum instantaneous levels recorded at the numbered stations each year adjusted to present diversions and outlet conditions.		

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Housing and Urban Development Flood Insurance Administration		
b. Title of Project		
Shore Erosion Program		
c. Performing Organization	d. Completion Date	
FIA, State of Indiana	Ongoing	
e. Abstract of Project		
The purpose of this program is to provide insurance to home owners to cover losses due to shoreline erosion. The FIA is currently in the process of developing the program. The program is expected to be implemented within the year.		

Catalog Data Sheet		
a. Supporting Agency and Program		
Department of Housing and Urban Development National Flood Insurance Program		
b. Title of Project		
c. Performing Organization		d. Completion Date
Department of Natural Resources Division of Water Planning Branch		Ongoing
e. Abstract of Project		
National program makes flood insurance on private property available. Program provides technical information on flood hazard areas. State assists in enrollment and administration of program in Indiana cities and towns.		



Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Interior Geological Survey		
b. Title of Project		
Water Quality Assessment of the Indiana Dunes National Lakeshore, 1973-74.		
c. Performing Organization	d. Completion Date	
U.S. Geological Survey		
e. Abstract of Project		
<p>The Indiana Dunes National Lakeshore is underlain by unconsolidated lake and glacial deposits which have been divided into three units. Unit 1 is comprised mostly of sand and, in the western part of the National Lakeshore, is capable of yielding more than 500 gallons per minute (32 litres per second) to properly constructed wells. Unit 2, a silt till below unit 1, has little potential as a source of water for public supplies within the National Lakeshore area. Unit 4, a clay till under unit 2, is capable of yielding from 10 to 65 gallons per minute (0.6 to 4 litres per second) throughout the National Lakeshore.</p> <p>Precipitation samples collected at the National Lakeshore had average inorganic ion concentrations ranging from 0 to 7.0 milligrams per litre. Streams in the National Lakeshore generally had a specific conductance ranging from 300 to 600 micromhos, a pH ranging from 6.5 to 8.1, and a dissolved oxygen concentration near saturation (7.7 to 12.9 milligrams per litre). The bogs and marshlands generally contained water with a specific conductance ranging from 40 to 150 micromhos, a pH ranging from 5.0 to 6.5, and dissolved oxygen ranging from 0.2 to 4.0 milligrams per litre. Most surface waters tended to have calcium and bicarbonate as the dominant ion pair. Exceptions include some inter-dunal ponds and certain watercourses and areas of Pinhook Bog. Ground-water chemical quality varied with depth and location but not with time during a 6-month interval. Ground water was usually a calcium magnesium bicarbonate type and moderately to very hard (71 to 390 milligrams per litre).</p>		

Catalog Data Sheet			
a. Supporting Agency and Program			
United States Department of the Interior Surface Water Gaging Stations			
b. Title of Project			
Water Resources Data for Indiana			
c. Performing Organization		Prepared in cooperation with	d. Completion Date
Water Resources Division		State of Ind. Dept. of Natural	Continuing program. Data compiled at the end of each water year.
United States Geological		Resources	
Survey		Indiana St. Board of Health	
		Indiana St. Highway Commission	
		Corps of Engineers, U.S. Army	
e. Abstract of Project			
<p>This project is a cooperative program that establishes and maintains gaging stations throughout the State of Indiana. The gaging stations are particular sites on a stream where systematic observations of gage height and/or discharge are obtained. These records are used to define basin characteristics, as well as help evaluate magnitude, frequency, and duration of stream discharge.</p>			

Catalog Data Sheet		
a. Supporting Agency and Program		
Department of Interior, Bureau of Outdoor Recreation		
b. Title of Project		
Land and Water Conservation Fund Acquisition and development grants		
c. Performing Organization		d. Completion Date
Division of Outdoor Recreation Department of Natural Resources		Program authorized until 1989
e. Abstract of Project		
<p>The Land and Water Conservation Fund is a 50/50 matching reimbursing federal assistance program for the acquisition of land and development of outdoor recreation facilities.</p> <p>The State of Indiana through the Department of Natural Resources receives an annual allocation which is divided between the Department of Natural Resources and City and County park and recreation boards.</p> <p>Since the inception of the program in 1965, Indiana has received \$28.4 million which has been used to acquire 15,942 acres of park land and develop a variety of outdoor facilities including picnic areas, campgrounds, ballfields, tennis courts, and swimming pools.</p>		

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Interior, National Park Service		
b. Title of Project		
Indiana Dunes National Lakeshore Master Plan		
c. Performing Organization	d. Completion Date	
National Park Service Indiana Dunes National Lakeshore	1967 1969 revised currently being revised.	
e. Abstract of Project		
<p>A master plan for the development of the National Lakeshore was published by the National Park Service (NPS) in 1967 and revised in 1969 to reflect the NPS's determination to incorporate central parking and mass transportation systems in the planning for the Indiana Dunes National Lakeshore and to involve in this work, to the extent possible, all those public agencies and private interests who share in determining the character of the Calumet Region. The objective of the plan is to preserve for the educational, inspirational, and recreational use of the public, certain portions of the Indiana Dunes and other areas of scenic, scientific and historic interest and recreational value in the State of Indiana. The plan provides for improved access and circulation in the Calumet Region; a visitor orientation/information facility for each designated use area in the IDNLS; environmental and nature study activities to be developed jointly with State and local school officials; and extensive recreational facilities which would include picnicking facilities, winter sport facilities, boating, fishing, swimming, camping and trails.</p>		

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Interior National Park Service		
b. Title of Project		
Evaluation of Beach Erosion Problem at Indiana Dunes National Lakeshore.		
c. Performing Organization	d. Completion Date	
Theodore S. Leviton & Associates Chicago, Illinois	April 1972	
e. Abstract of Project		
The report covers: (addresses)		
1) The physiographic and regional development of the area (including shore and near-shore contours) prior to construction or navigation channels.		
2) Shoreline and near-shore contour changes which have taken place over a period of years.		
3) An interpretation of above data.		
4) Relationships of lake levels, engineering, structures, and shore erosion.		
5) Recommendations for immediate and long-range remedial action at the Indiana Dunes National Lakeshore area.		

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- 2) Shoreline and near-shore contour changes which have taken place over a period of years.
- 3) An interpretation of above data.
- 4) Relationships of lake levels, engineering, structures, and shore erosion.
- 5) Recommendations for immediate and long-range remedial action at the Indiana Dunes National Lakeshore area.

Catalog Data Sheet			
a. Supporting Agency and Program  U.S. Department of Interior National Park Service Indiana Dunes National Lakeshore			
b. Title of Project  Basic Ecosystem Studies of the Indiana Dunes National Lakeshore			
c. Performing Organization  Submitted by School of Public and Environmental Affairs, Indiana University Northwest		d. Completion Date  October 1975	
e. Abstract of Project  The project objective was to organize in a comprehensive framework the natural history, land use, and selected environmental quality information relating to the Lakeshore. Emphasis was placed on collating and interpreting existing information and collection and analyses of new data relating to land use and the natural history of the area.  The framework study developed inventories and analyses of: <ol style="list-style-type: none"> <li>1) settlement-historical geography and land-use;</li> <li>2) biological studies in the Indiana Dunes including specific plant communities and animals of the Lakeshore;</li> <li>3) soils, geology, and climatology, and</li> <li>4) noise conditions.</li> </ol>			

Catalog Data Sheet		
a. Supporting Agency and Program		
U.S. Department of Interior National Park Service		
b. Title of Project		
An Evaluation of Physical and Biological Controls on Coastal Erosion in the Indiana Dunes National Lakeshore		
c. Performing Organization	d. Completion Date	
Great Lakes Coastal Research Laboratory, Purdue University	March 1976	
e. Abstract of Project		
The primary objectives of this investigation were:		
1) To assess the long and short term coastal erosion within the study area;		
2) To determine the coastal vegetative distribution and its influence on beach and dune stabilization;		
3) To evaluate the effectiveness of beach nourishment as an alternative for controlling beach erosion and maintaining dune protection;		
4) To recommend the best alternatives for beach erosion control and dune protection.		
In order to meet these objectives an extensive research investigation was carried out utilizing field observational data and existing documentation from the study area.		

- 1) To assess the long and short term coastal erosion within the study area;
- 2) To determine the coastal vegetative distribution and its influence on beach and dune stabilization;
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- 4) To recommend the best alternatives for beach erosion control and dune protection.

In order to meet these objectives an extensive research investigation was carried out utilizing field observational data and existing documentation from the study area.

# STATE PLANS, PROJECTS & PROGRAMS



Catalog Data Sheet		
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a. Supporting Agency and Program		
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Indiana Board of Health, Stream Pollution Control Board

b. Title of Project		
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Load Allocation Study of the Grand Calumet River and the Indiana Harbor Ship Canal

c. Performing Organization	d. Completion Date
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Combinatories, Inc.  
Lafayette

January 1974

e. Abstract of Project		
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This study addresses the formulation of waste load allocations for significant municipal, industrial, and semi-public wastewater point sources. Waste load allocations were evaluated for various water parameters. Waste load allocations for water quality limited parameters are intended to enable the maintenance of water quality standards for the considered parameters until 1980, the limit of the designated planning period.

Catalog Data Sheet		
a. Supporting Agency and Program		
Indiana Board of Health, Indiana Stream Pollution Control Board		
b. Title of Project		
Load Allocation Study - Little Calumet River Basin		
c. Performing Organization	d. Completion Date	
Henry B. Steeg and Associates, Indianapolis	November 1974	
e. Abstract of Project		
<p>This study addresses the formulation of waste load allocations for significant municipal, industrial, and semi-public wastewater point sources located within the Little Calumet River Basin. Waste load allocations for the following parameters were evaluated:</p> <ol style="list-style-type: none"><li>1) carbonaceous biochemical oxygen demand</li><li>2) nitrogenous biochemical oxygen demand</li><li>3) dissolved oxygen</li><li>4) ammonia</li><li>5) suspended solids</li><li>6) fecal coliform</li></ol> <p>Waste load allocations for water quality limited parameters are intended to enable the maintenance of water quality standards for the considered parameters until 1980, the limit of the designated planning period.</p>		

Catalog Data Sheet		
a. Supporting Agency and Program		
Indiana Department of Natural Resources		
b. Title of Project		
Industrial Minerals Program Industrial Sands of the Indiana Dunes (Bull. No. 7)		
c. Performing Organization	d. Completion Date	
Indiana Geological Survey	Published in 1952	
e. Abstract of Project		
The publication contains the following information:		
1) A late Pleistocene history of glacial Lake Chicago;		
2) A discussion of the commercial sand deposits including physical analyses of the sands, composition, and textural-depositional features of the dunes;		
3) Economic utilization of the sand (mostly outdated now);		
4) Production related facts including mechanisms of sand removal, prices, problems of production, etc. (mostly outdated now).		

- 1) A late Pleistocene history of glacial Lake Chicago;
- 2) A discussion of the commercial sand deposits including physical analyses of the sands, composition, and textural-depositional features of the dunes;
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Catalog Data Sheet

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

Geologic Mapping Program  
Geologic Map of the 1° X 2° Chicago Quadrangle, Indiana, Illinois, and Michigan,  
Showing Bedrock and Unconsolidated Deposits (Regional Geologic Map No. 4)

c. Performing Organization

Indiana Geological Survey

d. Completion Date

Published in 1970

e. Abstract of Project

The area mapped is from 41°00' to 42°00' North Latitude and 86°00' to 88°00' West Longitude. The scale of mapping is 1:250,000. The surficial unconsolidated materials are subdivided into 17 map units and the bedrock sequence into 6 units. A cross section showing the configuration of the land surface and bedrock units (drawn from the SW to the NE corner of the Quadrangle) is also included.

The original map compilation and field work was done on 7½-min. USGS topographic maps. These and other compilation maps of varying scales are on file at the Indiana Geological Survey in Bloomington, Indiana.

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

Industrial Minerals Program  
Specialty Sand Resources of Indiana (Bulletin 42-F)

c. Performing Organization

Indiana Geological Survey

d. Completion Date

Published in 1971

e. Abstract of Project

The publication contains the following information:

- 1) A history of the development and present state of development of the specialty sand economy in Indiana;
- 2) A discussion of the uses of specialty sand as abrasives, in the glass industry, in metallurgy, etc.;
- 3) The geologic and geographic occurrences of specialty sands throughout the state including the dune sand in Porter and LaPorte Counties.

Catalog Data Sheet

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

Environmental Geology Program  
The Indiana Dunes -- Legacy of Sand (Special Report 8)

c. Performing Organization

Indiana Geological Survey

d. Completion Date

Published in 1974

e. Abstract of Project

The publication contains the following information:

- 1) This paper, a non-technical report, was written for visitors to the Indiana Dunes;
- 2) Sections treating the glacial history of the area and the geomorphic history of glacial Lake Chicago;
- 3) A discussion of shoreline processes;
- 4) A discussion of dune formation and morphology;
- 5) The vegetative sequence from the shore inland;
- 6) The phenomenon of "squeaking sand";
- 7) A discussion of Pinhook Bog (a bog owned by the Indiana Dunes National Lakeshore that contains rare and unusual flora).

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

Environmental Geology Program  
Environmental Geology of Lake and Porter Counties, Indiana--An Aid to Planning  
(Special Report 11)

c. Performing Organization

Indiana Geological Survey

d. Completion Date

Published 1975

e. Abstract of Project

The report contains the following information:

- 1) A discussion of the physiography and natural character of the landscape;
- 2) A brief treatment of current land use;
- 3) Historical geology of the surficially exposed glacial deposits and the underlying bedrock units;
- 4) A section treating the engineering-geologic properties of the glacial deposits;
- 5) A generalized, qualitative discussion of the existing erosion problems and shoreline conditions along the Lake Michigan shoreline in Lake and Porter Counties;
- 6) An extensive treatment of surface and ground-water resources including water quality as it pertains to the unconsolidated system aquifers, the shallow bedrock aquifers, and the deep bedrock aquifer;
- 7) A discussion of existing and potential industrial minerals;
- 8) A waste disposal section including several subsections that deal with subsurface liquid-waste injection, sanitary landfills, liquid-waste storage lagoons, and septic systems.

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

Environmental Geology Program  
Geology as a Contribution to Land Use Planning in LaPorte County, Indiana

c. Performing Organization

Indiana Geological Survey

d. Completion Date

To be published in 1976

e. Abstract of Project

The report contains the following information:

- 1) A discussion of the geography and geology of the unconsolidated deposits;
- 2) Bedrock geology;
- 3) A section treating the engineering-geologic properties of the glacial deposits;
- 4) Information concerning ground water availability and quality;
- 5) Land-use suitability to septic systems and sanitary landfills;
- 6) A discussion of existing and potential industrial minerals including clay, sand and gravel, peat and marl, anhydrite and gypsum, and limestone.



## Catalog Data Sheet

## a. Supporting Agency and Program

Department of Natural Resources

## b. Title of Project

Fisheries Management, District I

## c. Performing Organization

Division of Fish and Wildlife

## d. Completion Date

Continuous Management Program

## e. Abstract of Project

The Coastal Zone area lies in a 16 county fisheries management district, one of eight districts in the state. Fish management here is almost exclusively warmwater with largemouth and smallmouth bass, bluegill, crappie, walleye and northern pike the more popular species. Data is collected via fisheries surveys on individual lakes in the area. Analysis of this data provides the basis for formulation of fish management recommendations which are carried out by the District Biologist. Recommendations may include total, partial or selective fish eradication, stocking, habitat manipulation including weed control and regulation changes.

The primary objective of the fish management program is to provide the optimum sustained yield of gamefish from public waters. Secondary objectives include information and education, extension services to pond owners and lake associations, investigation of fish kills, and cooperation with other agencies such as the Soil Conservation Service, Indiana Stream Pollution Control Board, U.S. Forest Service and the U.S. Fish and Wildlife Service.

Catalog Data Sheet

a. Supporting Agency and Program

Department of Natural Resources

b. Title of Project

Lake Michigan Investigation

c. Performing Organization

Division of Fish and Wildlife

d. Completion Date

Continuous Management/Research Program

e. Abstract of Project

The objective of the Lake Michigan Investigation is to manage Lake Michigan sport and commercial fish stocks for optimum sustained yield. This requires collection and analysis of data from:

- 1) sport and commercial fish populations;
- 2) fish food organisms including forage fish and invertebrates, and;
- 3) both sport and commercial catches from the lake.

Sport and commercial fishing regulations, the primary means of managing the fishery, are based on these data.

Secondary objectives of the investigation include dissemination of information to the fishing public, exchange of data with other state and federal agencies working on the lake and participation in organized multi-agency commissions and work groups addressing specific fish management problems in Lake Michigan.

The Lake Michigan Investigation annually serves about 100,000 sport fishermen and 20 to 40 commercial fishermen.

## Catalog Data Sheet

## a. Supporting Agency and Program

Department of Natural Resources and U.S. Fish and Wildlife Service

## b. Title of Project

Anadromous Fish Program

## c. Performing Organization

Division of Fish and Wildlife

## d. Completion Date

Continuous Management/Research  
Program

## e. Abstract of Project

As of July 1, 1976, the objective of the Anadromous Fish Program is to maintain and enhance, from a sport fishery standpoint, runs of coho and chinook salmon and steelhead trout in Indiana's Lake Michigan tributaries. Accurate, annual assessment of returns to these streams by adult fish is critical to the program. Only by such assessment can our hatchery be geared to meet the needs of the fishery. This assessment will be accomplished by fishermen creel surveys and actual counts (electronic) of migrating salmonids, both as young fish in the spring and as adult spawners in the fall.

Secondary program objectives include:

- 1) location and construction of an egg-taking facility;
- 2) development of fishing access on tributaries;
- 3) establishment of discrete populations of warmwater game fish along the Lake Michigan shoreline;
- 4) determination of the effect of heated water industrial discharges on salmon and trout runs;
- 5) location of pollutant sources and cooperation with the Stream Pollution Control Board in eliminating them;
- 6) dissemination of information about salmon and steelhead runs to the fishing public.

The Anadromous Fish Program is supported by annual stockings of 500,000 fingerling salmonids produced by the Mixsawbah State Fish Hatchery south of LaPorte. Production costs of these fish is cost shared at 50% by the U.S. Fish and Wildlife Service. The Fish and Wildlife Service also produces from 150,000 to 200,000 lake trout and 100,000 brown trout for stocking in Indiana waters annually.

## a. Supporting Agency and Program

Department of Natural Resources

## b. Title of Project

Statewide Wildlife Research

## c. Performing Organization

Division of Fish and Wildlife

## d. Completion Date

Continuous Wildlife Surveys

## e. Abstract of Project

Counties encompassing the Coastal Zone area are included in a statewide plan to obtain population trend data on major game species. Data are collected via wildlife biologists and conservation officers. Analysis of this data provides the basis for formulation of wildlife management recommendations. These recommendations may involve land, water, or habitat manipulation or variations in hunting seasons and bag limits to manage game animals and birds for optimum sustained yield.

## a. Supporting Agency and Program

Department of Natural Resources

## b. Title of Project

Wildlife Management, District I

## c. Performing Organization

Division of Fish and Wildlife

## d. Completion Date

Continuous Management Program

## c. Abstract of Project

The Coastal Zone area lies in an eight county wildlife management district, one of ten districts in the state. Wildlife management on private land is administered through the Wildlife Habitat Improvement Program (W.H.I.P.). The program offers technical assistance, certain seeds, forestry order forms for wildlife shrubs, signs and literature to private landowners to improve wildlife habitat.

In addition the district biologist is available to present programs to organizations, schools, and other group meetings. Newspapers, radio and television media are used to disseminate information on wildlife habitat development.

The primary objective of the wildlife management program is to improve wildlife habitat on private land.

## a. Supporting Agency and Program

Department of Natural Resources

## b. Title of Project

Wetlands Conservation Program

## c. Performing Organization

Division of Fish and Wildlife

## d. Completion Date

Continuous Acquisition and  
Management Program

## e. Abstract of Project

The Wetlands Conservation Program is designed to set-aside in perpetuity one of our most productive natural communities - the marsh. This requires the acquisition, limited development, and management of wetland areas. Since the initiation of this program in 1967, three areas have been purchased and a priority list of six other areas established. Negotiations on the purchase of two of these priority areas has been started.

At present, no marshes within the Coastal Zone Management Area are in or proposed for this program; however, if the need arises, and proper justifications are shown, priorities could be shifted to include an area or areas within this zone.

A wetlands biologist is assigned to this program. He is responsible for the evaluation, development and management of these areas. In addition, he is available to present programs on wetlands and their values to interested groups or organizations.

Catalog Data Sheet

a. Supporting Agency and Program

Department of Natural Resources

b. Title of Project

Environmental Concerns

c. Performing Organization

Division Fish and Wildlife

d. Completion Date

Continuous Management Program

e. Abstract of Project

Due to changing attitudes and legislation, the Division of Fish and Wildlife has become increasingly involved in "environmental concerns". In order to handle the work load and maintain a reasonable degree of habitat protection, a special environmental unit within the Division was organized in 1975.

The objectives of this project review program are:

- 1) To insure that a minimum amount of damage will occur to fish and wildlife resources;
- 2) To mitigate to the maximum degree practical unavoidable losses;
- 3) To recommend possibilities for enhancement of fish and wildlife resources.

These objectives are met by a program involvement ranging from plan reviews, office consultations with developers and construction agencies to field reviews and inspections.

The types of projects reviewed include small watershed projects, Corps of Engineers projects, highway construction, housing and industrial developments, airports, recreation areas, transmission line and pipeline corridors, power plants, and floodway construction. In its first year of operation, the environmental unit reviewed and commented on approximately 700 projects within Indiana.

Catalog Data Sheet

a. Supporting Agency and Program

Department of Natural Resources

b. Title of Project

Forest Classification Act

c. Performing Organization

Division of Forestry

d. Completion Date

Ongoing

e. Abstract of Project

The Forest Classification Act of March 10, 1921 as amended by Acts of 1945, 1947, and 1967, is a program to encourage timber production and to protect watersheds by classifying certain forestlands.

Any owner of a parcel of 10 acres or more of Indiana forestland may enter his forestland into Forest Classification and receive a reduced tax assessment on the classified acreage at the assessed rate of one dollar per acre. Any person owning or controlling Classified Land shall follow minimum standards of good timber management as prescribed by the Department of Natural Resources.



Catalog Data Sheet

a. Supporting Agency and Program

Department of Natural Resources in cooperation with the U.S. Forest Service

b. Title of Project

Cooperative Forest Management

c. Performing Organization

Division of Forestry

d. Completion Date

Ongoing

e. Abstract of Project

Under the Cooperative Forest Management Program, the Division of Forestry provides technical forestry assistance to the private landowners of Indiana through 16 Service Forester Districts. The Coastal Zone Area falls within Service Forester District 1.

The assistance provided by the Division of Forestry to private landowners within the Coastal Zone Area includes the following:

- 1) evaluation of productivity and quality of forestland;
- 2) the preparation of long term forest management plans;
- 3) the selective marking and sale of timber;
- 4) the recommendation of timber improvement measures;
- 5) recommendations for recreational management of forestland;
- 6) the prescription of proper reforestation measures;
- 7) the Classified Forest Program;
- 8) forest insect and disease detection and control, and;
- 9) informational and educational programs.

Catalog Data Sheet

a. Supporting Agency and Program

Department of Natural Resources

b. Title of Project

Evaluation, Procurement, and Management of Natural Areas and Nature Preserves

c. Performing Organization

Division of Nature Preserves

d. Completion Date

Ongoing

e. Abstract of Project

The Division of Nature Preserves is responsible for locating and evaluating significant natural areas in the State of Indiana. When it is desirable and possible these areas are acquired, either by the performing organization or by other competent groups. The areas are then dedicated and managed as nature preserves.

There are three dedicated Nature Preserves in the Coastal Zone which are managed by the State:

- 1) Dunes Nature Preserves;
- 2) Moraine Nature Preserves, and;
- 3) Hoosier Prairie Nature Preserves.

Catalog Data Sheet

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

Local Planning Assistance

c. Performing Organization

Division of Outdoor Recreation

d. Completion Date

Continuous

e. Abstract of Project

To review and evaluate all local park and recreation board ordinances and all local park and recreation master plans as a part of the requirements for local agency participation in the Land and Water Conservation Fund Program.

To provide outdoor recreation planning and technical assistance to the public at relevant training sessions, conferences, and meetings.

To provide general outdoor recreational planning and technical assistance to local and regional public agencies and organizations in the preparation of outdoor recreation master plans on a very limited basis.

To provide more specific and/or specialized planning and technical assistance to local and regional public agencies and organizations in planning and developing outdoor recreation systems which have regional or statewide significance, either in fact or in concept.

Catalog Data Sheet

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

Indiana Dunes State Park

c. Performing Organization

Division of State Parks

d. Completion Date

1925

e. Abstract of Project

Dunes State Park is located on the shore of Lake Michigan. The park covers 2,182 acres. The facilities include:

- 1) 311 campsites
- 2) 120 person capacity group camp
- 3) 300 picnic sites
- 4) 3,000 parking spaces
- 5) 3.5 miles of roads
- 6) 16 miles of hiking trails
- 7) 1 wastewater treatment plant, sewage and water lines
- 8) Manager residence, service area, and bathhouse

Catalog Data Sheet

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

Indiana Dunes State Park Master Plan

c. Performing Organization

Division of State Parks

d. Completion Date

1966

e. Abstract of Project

The master plan for the Indiana Dunes State Parks was completed in 1966. Since that time the acquisition of the Indiana Dunes National Lakeshore and the dedication of the Indiana Nature Preserve within the park has invalidated the 1966 master plan.

Catalog Data Sheet		
a. Supporting Agency and Program		
Indiana Department of Natural Resources		
b. Title of Project		
Calumet Trail		
c. Performing Organization	d. Completion Date	
Division of Outdoor Recreation	June 1, 1976	
c. Abstract of Project		
<p>This project involved the development of a 9.2 mile slag-surfaced bicycle/hiking trail on property leased from Northern Indiana Public Service Company. Construction included grading, surfacing and installation of drainage structures and control gates.</p> <p>The trail is 8 feet wide and is designed to accommodate service and maintenance vehicles as well as bicycles. The trail lies adjacent to the southern boundary of Indiana Dunes State Park and also runs through the Indiana Dunes National Lakeshore. It travels between Michigan City and Dune Acres, Indiana.</p>		

Catalog Data Sheet

a. Supporting Agency and Program

Indiana Department of Natural Resources

b. Title of Project

1975-1978 Indiana Outdoor Recreation Planning Program

c. Performing Organization

Division of Outdoor Recreation

d. Completion Date

March 1979

e. Abstract of Project

The aforementioned planning program is intended to focus the Department's efforts on identifying and attempting to meet Indiana's outdoor recreational needs. It is designed to strengthen and expand the Department's previous planning efforts, will essentially provide for the critical evaluation, updating, and refinement of many of the areas which were dealt with the 1975 Indiana Outdoor Recreation Plan, and will culminate in the development and distribution of the 1979 Indiana Outdoor Recreation Plan. The program contains 28 separate planning elements including studies to update the State's Outdoor Recreation Inventory and user data; origin-destination and out-of-state visitor studies; a series of urban outdoor recreation studies; the revision of the local level recreational planning handbook; the revision of the Department's ten-year acquisition and development plan; a long distance cross-county hiking trails and wild areas study, to name only a few.

# Catalog Data Sheet

## a. Supporting Agency and Program

Indiana Department of Natural Resources

## b. Title of Project

The Little Calumet River Regional Park

## c. Performing Organization

Division of Outdoor Recreation

## d. Completion Date

Projected Completion 1986

## e. Abstract of Project

This project involves the proposed establishment of an outdoor recreation system containing some 4,300 acres of land along the 22 miles of the Little Calumet River from the Indiana-Illinois State Line to Lake Michigan in Lake and Porter Counties. This proposed system is centered on a Corps of Engineers multi-purpose flood control-recreational-recreational navigation project involving these 22 miles of the River.

The project has been prepared by the Department of Natural Resources working in close cooperation with the Northwestern Indiana Regional Planning Commission, the Little Calumet River Basin Commission, the Lake County Park and Recreation Department, and the Corps of Engineers.

A conceptual Master Plan for acquisition and development has been prepared and land acquisition efforts are proceeding.

### Related Reports:

Indiana Department of Natural Resources, Division of Outdoor Recreation. 1975. An Analysis of the Recreation Potential of the Little Calumet Rivers.

Environmental Planning and Engineers, Inc. 1976. A Regional Park Conceptual Development Plan for the Little Calumet River in Northwestern Indiana. Prepared for the Indiana Department of Natural Resources.



## Catalog Data Sheet

## a. Supporting Agency and Program

Department of Natural Resources

## b. Title of Project

Flood Plain Management Program, Division of Water

## c. Performing Organization

Division of Water and Natural Resources Commission

## d. Completion Date

Continuous

## e. Abstract of Project

The 1945 Flood Control Act, as amended, assigned the Natural Resources Commission and the Division of Water various duties and powers. Among the important features of this statute was the clause which prohibited the construction of abodes or places of residence in floodways in this State and the clause which establishes the requirement that prior to any construction in the floodway in the State of Indiana, a permit for staying must be issued by the Natural Resources Commission. In effect, this amounts to state level floodway encroachment control legislation. The Division of Water provides technical support to the Commission and technical assistance to the people of the State concerning floodway delineations.

Catalog Data Sheet

a. Supporting Agency and Program

Department of Natural Resources

b. Title of Project

Flood Plain Management Program, Division of Water

c. Performing Organization

Division of Water, Planning Branch  
Natural Resources Commission

d. Completion Date

Continuous

e. Abstract of Project

Program directed at cities and towns for proper management of flood hazard areas. Flood information and technical assistance for preparation of local ordinance are available from the Division of Water. The authorization for this program is the Flood Plain Management Act, Public Law 123, Acts of 1973, Indiana State Code.

This Act also directs the Natural Resources Commission to establish, by rule, minimum standards for the regulation of all flood hazard areas in the State of Indiana. After July 1, 1974, any local ordinance which might be adopted by local unit of government which contains flood plain management provisions must meet or exceed these standards. Further, all such ordinances must be approved by the Natural Resources Commission prior to their effective date.

## a. Supporting Agency and Program

Department of Natural Resources

## b. Title of Project

Lake Michigan Landfills

## c. Performing Organization

Natural Resources Commission

## d. Completion Date

Ongoing

## e. Abstract of Project

Under Chapter 91, Acts of 1907, as amended, the Natural Resources Commission with the approval of the Governor of the State of Indiana has the authority to give the owner or owners of land bordering upon the waters of Lake Michigan the right to fill-in, reclaim and own the submerged land adjacent to and within the boundaries of his land so bordering upon such land and between the shore and the dock or harbor line that is or may be established by the United States or the proper officials thereof. After the land authorized to be filled has been filled, the owner, upon the presentation of sufficient evidence that the filling has been done, shall receive from the State of Indiana a patent signed by the Governor and attested to by the Secretary of State.

a. Supporting Agency and Program Department of Natural Resources	
b. Title of Project Mineral Extraction Permit	
c. Performing Organization Natural Resources Commission	d. Completion Date Ongoing
e. Abstract of Project Chapter 60, Acts of 1919, as amended, provides that the Natural Resources Commission may issue permits under specified conditions, to any person, firm or corporation to take coal, sand, gravel, stone, gas, oil or other mineral or substance from or under the bed of any of the navigable waters of the State.	

a. Supporting Agency and Program

Department of Natural Resources

b. Title of Project

Water Withdrawal Permits

c. Performing Organization

Natural Resource Commission

d. Completion Date

e. Abstract of Project

Under the provisions of Chapter 6, Acts of 1919, as amended, persons desiring to withdraw water from a navigable stream for such purposes as irrigation and cooling water for power generation or other industrial purposes, must obtain a permit from the Natural Resources Commission.

a. Supporting Agency and Program

Department of Natural Resources

b. Title of Project

Lake Michigan (L.M.) Permits

c. Performing Organization

Natural Resource Commission

d. Completion Date

e. Abstract of Project

The LM Permit is required for all construction in Lake Michigan except for those fills authorized by Chapter 71 acts of 1907, as amended.

a. Supporting Agency and Program

Department of Natural Resources

b. Title of Project

Lake Michigan Land Fill Permits


c. Performing Organization

Natural Resources Commission

d. Completion Date

e. Abstract of Project

Under Chapter 91, Acts of 1907, as amended, the Natural Resources Commission with the approval of the Governor of the State of Indiana has the authority to give the owner or owners of land bordering upon the waters of Lake Michigan the right to fill-in, reclaim and own the submerged land adjacent to and within the boundries of his land so bordering upon such land and between the shore and the dock or harbor line that is or may be established by the United States or the proper officials thereof. After the land authorized to be filled has been filled, the owner upon the presentation of sufficient evidence that the filling has been done, shall receive from the State of Indiana a patent signed by the Governor and attested to by the Secretary of State.



# INTER-STATE PLANS, PROJECTS & PROGRAMS



Catalog Data Sheet

a. Supporting Agency and Program

Great Lakes Basin Commission

b. Title of Project

Great Lakes Basin Framework Study

c. Performing Organization

d. Completion Date

Currently being published  
1976

e. Abstract of Project

The Framework Study developed a framework or skeleton plan of ways in which the needs for water could be met in the future. This Framework is valuable as a guide to uses and locations that may be important. It will permit planning and development to move ahead with the assurance that no serious conflicts of use or water supply will develop. Twenty-three appendices have been published which supply the natural, social, and economic data for such a guide.

REGIONAL PLANS,  
PROJECTS & PROGRAMS

a. Supporting Agency and Program

Lake-Porter County Regional Transportation and Planning Commission

b. Title of Project

Indiana Dunes National Lakeshore Prototype Impact Study

c. Performing Organization

Hall/Kane Associates, Inc. - Gary, Indiana  
Landscapes Inc. - Madison, Wisconsin

d. Completion Date

January 1, 1970

e. Abstract of Project

This study's intent was to investigate the planning processes necessary for the development of a management policy for the people and lands affected by the Indiana Dunes National Lakeshore. The study consists of:

- 1) relevant data inventory and interpretation;
- 2) provision for concerned citizen and inter-governmental participation in the planning process;
- 3) the development of methods and policies for the determination of existing and potential impacts, and;
- 4) the preparation of a plan and strategy for the study design.

a. Supporting Agency and Program

Lake County Parks and Recreation Board

b. Title of Project

Lakeshore Park and Marina Master Plan Development

c. Performing Organization

Ralph Burke Associates

d. Completion Date

March 1976

e. Abstract of Project

The Final Report of the Lakeshore Park and Marina Master Plan includes the following sections:

- I. Introduction
- II. Demand for Lakefront Facilities in Lake County
- III. Site Selection
- IV. Facilities Required to Meet the Demand
- V. Recommended Master Plan Development
- VI. Staged Development Program and Cost Estimates
- VII. Estimated Revenue and Operational Expenses

Ralph Burke and Associates recommended that the Lakeshore Park and Marina to be located in Hammond and Whiting between the Commonwealth Edison Plant on the west and Whiting City Park on the east. This development will create a single continuous Lakefront recreation facility encompassing over 9,000 lineal feet of shoreline.

